

REMARKS

The Official Action mailed November 3, 2003, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on November 15, 2001, and September 20, 2002.

Claims 1-29 were pending in the present application prior to the above amendment. The Applicant notes with appreciation the allowance of claims 2-5, 7-18 and 20-23 (page 14, Paper No. 17). Claim 6 has been canceled, and claims 1-5, 24 and 27 have been amended to better recite the features of the present invention. Accordingly, claims 1-5 and 7-29 are now pending in the present application, of which claims 1-5, 24 and 27 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 1, 6, 24 and 25 as anticipated by JP 62-274729 to Katami. As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Katami does not teach all the elements of the independent claims, either explicitly or inherently. The Applicant respectfully submits that an anticipation rejection cannot be maintained against independent claim 1 of the present invention. Claim 1 recites "forming a second mask to cover a portion of the lower layer of the interlayer insulator, which is exposed by the etching step." The Official Action asserts that Katami teaches "forming a second mask (107) to cover a portion of the silicon dioxide layer, which is exposed by the etching step" (page 3, Paper No. 17, citing Figs. 1A-1G). The Applicant respectfully disagrees and traverses the above assertions. The second mask

107 of Katami does not cover a portion of the lower layer (i.e. the SiO₂ film 105) exposed by an etching step (see Fig. 1E of Katami). Therefore, Katami does not teach forming a second mask to cover a portion of a lower layer of an interlayer insulator, which is exposed by an etching step.

Also, the Applicant respectfully submits that an anticipation rejection cannot be maintained against independent claim 24 of the present invention, as amended. Claim 24 has been amended to recite a relative thickness of first and second interlayer insulating films, which is supported in the specification at page 1, lines 32-35. Specifically, claim 24 recites that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film. Katami does not teach that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film.

Since Katami does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b) are in order and respectfully requested.

Paragraph 4 of the Official Action rejects claim 1 as anticipated by U.S. Patent No. 5,635,423 to Huang et al. The Applicant respectfully submits that an anticipation rejection cannot be maintained against independent claim 1 of the present invention, as amended. The Applicant has amended claim 1 to include the features of claim 6. Specifically, claim 1 has been amended to recite forming an interlayer insulator comprising at least an upper layer comprising silicon nitride and a lower layer comprising silicon oxide, each comprising different dry etching characteristics. The Official Action concedes that Huang does not "explicitly teach wherein the upper/second interlayer insulator is silicon nitride and wherein the lower/first interlayer insulator is silicon oxide" (page 7, Paper No. 17). Therefore, the anticipation rejection of amended claim 1 cannot be maintained.

Since Huang does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(e) are in order and respectfully requested.

Paragraph 6 of the Official Action rejects claim 24 as obvious based on Huang. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present invention, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. As noted above, claim 24 has been amended to recite that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film. Huang does not teach or suggest that a second interlayer insulating film is 1/5 to

1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film.

Since Huang does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 7 of the Official Action rejects claims 6 and 25 as obvious based on the combination of Huang and Katami. The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Please incorporate the arguments above with respect to the deficiencies in Huang and Katami. Huang and Katami, either alone or in combination, do not teach or suggest forming a second mask to cover a portion of a lower layer of an interlayer insulator, which is exposed by an etching step (claim 1), forming an interlayer insulator comprising at least an upper layer comprising silicon nitride and a lower layer comprising silicon oxide, each comprising different dry etching characteristics (claim 1), or that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film (claim 24). Since Huang and Katami do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

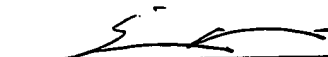
Paragraph 8 of the Official Action rejects claims 19 and 26-28 as obvious based on the combination of Huang and U.S. Patent No. 5,063,378 to Roach. Paragraph 9 of the Official Action rejects claims 19 and 26-28 as obvious based on the combination of Katami and Roach. Roach does not cure the deficiencies in Huang and Katami. The Official Action relies on Roach to allegedly teach a TFT connected to a pixel electrode (page 9, Paper No. 17). Also, please note, independent claim 27 has been amended in a manner similar to claim 24. Huang, Katami and Roach, either alone or in combination, do not teach or suggest forming a second mask to cover a portion of a

lower layer of an interlayer insulator, which is exposed by an etching step (claim 1), forming an interlayer insulator comprising at least an upper layer comprising silicon nitride and a lower layer comprising silicon oxide, each comprising different dry etching characteristics (claim 1), or that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film (claims 24 and 27). Since Huang, Katami and Roach do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 10 of the Official Action rejects claim 27 as obvious based on Katami. Katami does not teach or suggest that a second interlayer insulating film is 1/5 to 1/50 thinner than a total thickness of a first interlayer insulating film and the second interlayer insulating film (claim 27). Since Katami does not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,



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